

What is claimed is:

- 1 1. A method of organizing data in a storage device, comprising:
2 receiving data in the storage device;
3 transforming the received data into a first data object; and
4 storing the first data object in a hierarchical data structure, the hierarchical
5 data structure containing plural levels of data objects.
- 1 2. The method of claim 1, wherein the received data is associated with
2 information describing the received data, and the hierarchical data structure contains
3 plural levels of interconnected nodes, each node representing a respective data object,
4 wherein storing the first data object in the hierarchical data structure comprises
5 storing the first data object as one of the nodes based on the information describing
6 the received data.
- 1 3. The method of claim 2, wherein receiving the data comprises receiving a file
2 having a header portion containing the information describing the received data.
- 1 4. The method of claim 1, wherein the received data is associated with
2 information describing the received data, and
3 wherein different portions of the hierarchical data structure represent different
4 categories of data, and wherein storing the first data object comprises storing the first
5 data object in one of the different portions based on the information describing the
6 received data.
- 1 5. The method of claim 4, further comprising:
2 receiving additional data in the storage device;
3 transforming the additional data into a second data object; and
4 storing the second data object in a second hierarchical data structure.

1 6. The method of claim 5, wherein the plural hierarchical data structures store
2 respective different groups of data, wherein storing data objects in respective ones of
3 the hierarchical data structures is based on respective types of data contained in the
4 data objects.

1 7. The method of claim 1, wherein receiving the data comprises receiving a first
2 file, and the hierarchical data structure comprises a first hierarchical data structure, the
3 method further comprising:

4 receiving a second file in the storage device;
5 transforming the second file to a second data object; and
6 storing the second data object in a second hierarchical data structure.

1 8. The method of claim 7, wherein each of the first and second files contains
2 metadata to describe data contained in the respective one of the first and second files,
3 wherein storing each of the first and second data objects in a respective one of
4 the first and second hierarchical data structures is based on the metadata associated
5 with a respective one of the first and second files.

1 9. An article comprising at least one storage medium containing instructions that
2 when executed cause a storage controller of a storage device to:

3 receive data for storage in the storage device, wherein the received data is
4 associated with metadata;
5 transform the received data into a first data object; and
6 store the first data object in a data structure, the data structure having plural
7 portions for storing plural respective categories of data objects,
8 wherein the first data object is stored in one of the plural portions based on the
9 metadata.

1 10. The article of claim 9, wherein the data structure comprises a hierarchical data
2 structure having plural interconnected nodes, each node representing a corresponding
3 data object,

4 wherein storing the first data object comprises storing the first data object as
5 one of the nodes in the hierarchical data structure based on the metadata.

- 1 11. The article of claim 10, wherein receiving the data comprises receiving a file
2 having a header portion containing the metadata.
- 1 12. The article of claim 9, wherein receiving the data comprises receiving a first
2 file, and the data structure comprises a first data structure, and wherein the
3 instructions when executed cause the system to further:
4 receive a second file in the storage device;
5 transform the second file into a second data object; and
6 store the second data object in a second data structure that stores a different
7 category of data objects than the first data structure.
- 1 13. The article of claim 12, wherein the first file is associated with metadata
2 indicating a category of data in the first file, and the second file is associated with
3 metadata indicating a category of data in the second file,
4 wherein storing the first and second data objects in respective first and second
5 data structures is based on the respective metadata.
- 1 14. The article of claim 9, wherein the instructions when executed cause the
2 system to associate a function with the first data object.
- 1 15. The article of claim 14, wherein the instructions when executed cause the
2 system to apply the function to the data object in response to a request to access the
3 data object.
- 1 16. A system comprising:
2 a storage to store a hierarchical data structure, the hierarchical data structure
3 containing plural levels of data objects;
4 a module to receive data; and
5 a controller to transform the received data into a first data object, and to store
6 the first data object in the hierarchical data structure.

1 17. The system of claim 16, wherein the storage is to store plural hierarchical data
2 structures, the controller is to store the first data object in one of the plural
3 hierarchical data structures based on metadata associated with the received data.

1 18. The system of claim 17, wherein the module is to receive additional data, and
2 the controller is to transform the additional data into a second data object, and to store
3 the second data object in another one of the plural hierarchical data structures based
4 on metadata associated with the additional data.

1 19. The system of claim 17, wherein the received data comprises a first file, and
2 the data object comprises a first data object, the module to further receive a second
3 file and the controller to transform the second file to a second data object, each of the
4 first and second files associated with respective metadata,

5 the controller to store the first data object in a first one of the hierarchical data
6 structures based on the respective metadata indicating that the first file contains data
7 belonging to a first category, and

8 the controller to store the second data object in a second one of the
9 hierarchical data structures based on the respective metadata indicating that the
10 second file contains data belonging to a second category.

1 20. The system of claim 16, wherein the received data is associated with
2 information describing the received data, and the hierarchical data structure includes
3 plural portions to store different categories of data,

4 the controller to store the first data object in one of the plural portions based
5 on the information associated with the received data that indicates a category of the
6 received data.

- 1 21. The system of claim 16, wherein the received data is associated with
- 2 information to indicate a category of the received data, and the hierarchical data
- 3 structure comprises a tree of interconnected nodes,
- 4 the controller to store the data object in the hierarchical data structure as a
- 5 node in the tree of interconnected nodes based on the information indicating the
- 6 category of the received data.